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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,840	02/13/2002	Ken Anderson	495812001400	9040
7590	11/05/2003			
Robert E. Scheid Morrison & Foerster LLP 425 Market Street San Francisco, CA 94105-2482			EXAMINER JUBA JR, JOHN	
			ART UNIT 2872	PAPER NUMBER

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,840

Applicant(s)

ANDERSON, KEN

Examiner

John Juba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 15-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6, 8, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-4, 7, 9-11, and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Election/Restrictions***

Applicant's election of Group I in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 15-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Due to a typographical error in the restriction requirement, independent claim 15 was mistakenly grouped with group I. However, given the brief description of the groups, and the discussion of distinctness between groups, it is believed that the error was self-evident. Accordingly, the restriction requirement is still deemed proper and made final. MPEP 814.

Claim Rejections - 35 USC § 112

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since the claim from which claim 12 depends already recites a polarizing beam splitter and a detector performing the same functions, claim 12 is confusing in reciting that the apparatus further comprises these components. That is, it is not clear whether

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an additional set of components is provided or how the claimed structure is to be further limited.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 5, 6, 8, 12, and 13 are rejected under 35 U.S.C. 102(a) as being anticipated by FUJI XEROX (JP 2000-268380 A). Referring *primarily* to Figure 3 and the associated text of the attached machine translation, disclose a hologram recording apparatus comprising polarizing beam splitter in the output arm of the object beam and a detector. The basic operation is described in paragraph [0019]. In reading a multiplexed hologram in which an alignment pattern has been stored as an amplitude-encoded hologram, an S-polarized replica of the reference beam causes the reconstructed beam to contain the alignment image as an S-polarized component, and to contain the second multiplexed image as a P-polarized component. Notably, once having written an amplitude-encoded hologram containing the alignment pattern, the writing operation for the second multiplexed image is performed using an object beam of P-polarized light and a reference beam of S-polarized light. Thus, during the second write operation, the output arm of the object beam contains the 0-order P-polarized second image and an "offset" component (alignment pattern) as a diffracted portion of

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the S-polarized reference beam. Since FUJI XEROX disclose a control circuit responsive to the detected alignment pattern to position the optical head, the detector (53s) must be regarded as being "for" (capable of) measuring the offset component.

With regard to claim 6, the act of passing the source beam through splitter (24) may be regarded as "adjusting" the polarization, since light containing a single polarization is derived from light having a different polarization orientation.

With regard to claim 8, the apparatus comprises a laser (21); a beam splitter (24) for splitting the source into two components (2) and (3); a data-beam source (26) for generating a data beam (4) having a first (P) polarization; a reference beam source (28) for generating a reference beam by adjusting the second component (3) of the source beam to have a second polarization (6)(P/S); a holographic medium (10); a polarization beam splitter (52) for separating an offset component (alignment image) from the output arm (7) of the data beam; and a detector (53s) for measuring the offset component.

With regard to claim 13, FUJI XEROX disclose the data beam source (26) as suitably being a liquid crystal display panel. It will be appreciated that liquid crystal panels "adjust" the polarization of light passing therethrough.

Allowable Subject Matter

Claims 2 – 4, 7, 9 – 11, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art, taken alone or in combination, fails to teach or to fairly suggest *in combination*,

the steps or structure for detecting the output *power*, detecting the input *power*, and determining a diffraction efficiency, as recited in claims 2, 3, 9, and 10;

the steps or structure for detecting the output *power*, and monitoring for stability , as reciting in claims 4 and 11;

the apparatus wherein the second polarization differs from the first polarization by a "small" rotation, or the step of causing this to be the case, as variously recited in claims 7 and 14. One of ordinary skill would not consider a 90° rotation corresponding to an orthogonal vector state to be a "small" rotation. Examples of "small" polarizations are disclosed at Page 6 (line 25) of the instant specification.

With regard to the apparatus claims, the recitation of the structure as being "for" the recited function conveys to the artisan that the structure is at least capable of the function. In the instant case, FUJI XEROX make no suggestion of power monitoring.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Notably, Stoll (U.S. Patent number 5,896,359) disclose an apparatus for recording a hologram, the apparatus comprising a polarization rotator for proportioning the reference and object beams, a data source *for reflecting* a data-encoded object

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beam, a polarization rotator for setting the polarization of the object beam, and a polarization beam splitter *in the output arm of the reference beam* for monitoring a variety of parameters. The latter polarization beam splitter is part of optical steering logic manipulated according to separate, read, write, erase, and monitoring operations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (703) 308-4812. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn can be reached on Mon.- Thu., 9 - 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


JOHN JUBA
PRIMARY EXAMINER
Art Unit 2872

October 31, 2003